

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Amendment of Part 90 of the )  
Commission's Rules to Adopt )  
Regulations for Automatic )  
Vehicle Monitoring Systems )

PR Docket No. 93-61

To: The Commission

DOCKET FILE COPY ORIGINAL

OPPOSITION OF THE  
AMERICAN TELEMEDICINE ASSOCIATION  
TO PETITIONS FOR RECONSIDERATION

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## SUMMARY

The American Telemedicine Association ("ATA") appreciates the opportunity to participate in this important proceeding, the outcome of which will have significant impact on the expanding field of telemedicine. A growing number of physicians and other health care professionals are utilizing all types of technology, including Part 15 devices, to communicate with one another and to send and retrieve information concerning diseases, diagnosis, treatments, medical procedures and vital patient-related medical data. Telemedicine uses Part 15 technology to access information in an efficient and cost-effective manner. The ATA is encouraged by the protection afforded Part 15 devices, in general, and medical communications, in particular, by the new rules adopted in this proceeding. Portions of certain petitions for reconsideration, however, want changes made to the new rules which would severely endanger medical communications by means of Part 15 devices. The ATA respectfully requests that the Commission reject these proposed changes.

Specifically, the Commission should reject proposals to eviscerate the presumption of non-interference for Part 15 devices in the new rules by making the presumption rebuttable. Such a change would afford LMS operators the opportunity to force medical and other Part 15 users to curtail or cease operations. Likewise, the Commission should reject a request to oppose the term "final link" until the Commission clarifies the term. The term and its operational use are sufficiently clear, and any opposition should have been filed within the time frame allotted in Commission regulations. The Commission should resist adding a distance variable to the presumption. As many Part 15 devices are portable, this requirement would be virtually impossible to enforce. Also, it could potentially force hospitals, clinics and other users of Part 15 devices to cease operations if a LMS operator decided to locate within the prohibited distance from the Part 15 user.

The Commission should also reject requests to allow in the 902-928 MHz band (i) unrestricted voice messaging and (ii) wide band forward links. The new rules establish a band-sharing scheme that is delicately balanced to permit LMS and Part 15 to share the band in the most efficient way possible. Use of either unrestricted voice messaging or wide band forward links in the band would severely impair the ability of Part 15 devices to operate in the band and thus destroy the Commission's carefully crafted balance of uses.

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**OPPOSITION OF THE  
AMERICAN TELEMEDICINE ASSOCIATION  
TO PETITIONS FOR RECONSIDERATION**

I. THE "FINAL LINK" EXCEPTION IN NEW RULE SECTION 90.361(c)(2)(11)(B) IS CRITICAL TO THE USE OF WIRELESS TECHNOLOGY AND THE NII FOR MEDICAL PURPOSES. THE MEANING OF THE TERM "FINAL LINK" IS CLEAR AND, THEREFORE, PINPOINT IS OBLIGATED TO SEEK RECONSIDERATION WITHIN THE TIME FRAME SPECIFIED IN 47 C.F.R. § 1.429.

The ATA, a 501(c)(3) corporation, promotes professional, ethical, and equitable delivery in healthcare delivery through the application of telecommunications technology. The ATA implements these objectives by (i) promoting telemedical research and education; (ii) assisting in the development of telemedical policy and standards; (iii) educating government and industry leaders about telemedicine as an essential element in the delivery of modern medical care; (iv) providing educational materials to public and professional organizations; (v) interacting with healthcare systems world-wide; (vi) serving as a clearinghouse for telemedical information and services; and (vii) supporting local health care system initiatives in telemedicine, especially in medically underserved areas.

2. Telemedicine includes the transfer of medical information (including graphics, video and voice) between distant locations and between patients, physicians, other health care providers, and medical institutions for diagnosis, treatment, consultation and continuing education. Critical to the provision of telemedicine is the accelerated construction of an advanced nation-wide telecommunications infrastructure. The ATA believes that Part 15 wireless technology can be an effective and cost-efficient option for achieving this goal.

3. The ability of doctors, nurses, researchers, paramedics and other health care providers to communicate with one another and to send and retrieve information concerning diseases, diagnosis, treatment, medical procedures and vital patient-related medical data in a cost-effective way is critical to the delivery of modern health care. Part 15 devices using the 902-928 MHz band have the potential to provide the necessary expanse of services at a price that the health care consuming public can more readily afford.

4. In 1985, the Commission adopted rules that allowed unlicensed spread spectrum operations in the 902-928 MHz band subject to specified power limits.<sup>2/</sup> In response to the Commission's encouragement, Part 15 manufacturers have invested hundreds of millions of dollars in the research, development and production of new commercial and consumer products. Commission

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<sup>2/</sup> First Report and Order, Gen. Docket 81-413, 101 FCC 2d 419 (1985)

actions encouraging Part 15 manufacturers to develop more and better products were in the public interest.

5. The Commission stimulated technological advances that can provide low cost, reliable, Part 15 wireless communications products and services for all public and private sectors of our economy, including the medical sector. Whether these services are communications from wireless modems in urban hospitals, suburban medical centers or rural health clinics or the provision of information to health care providers working at bedsides in patients' homes, the public interest is well served. The Commission thankfully shares this view which is why it exempted communications involving medical services from the sliding scale power reduction in new rule 90.361(c)(2)(ii)(B).

6. The ATA opposes that portion of the PFR filed by Pinpoint Communications, Inc., ("Pinpoint") which first asks the Commission to clarify the term "final link" in new rule section 90.361(c)(2)(ii)(B), and then reserves the right to seek reconsideration of the new rule section once "final link" is so clarified.<sup>3/</sup> This new rule section is sufficiently clear as written, and Pinpoint should have asked for reconsideration within the time provided by Section 1.429.<sup>4/</sup>

7. Section 90.361(c)(2)(ii)(B) states that the sliding scale power reduction necessary to maintain the protection of the presumption of non-interference (see below) will not be applied to

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<sup>3/</sup> Petition for Reconsideration of Pinpoint at p.23, n. 39.

<sup>4/</sup> 47 C.F.R. § 1.429.

a Part 15 device when such device provides "the final link for communications of entities eligible under Subpart B or C of this Part 90." Part 90 makes plain that Subparts B and C govern the use of the spectrum by Public Safety Radio Services and Special Emergency Radio Services. Therefore, the only Part 15 users that fall under the final link exception to the sliding scale power reduction are the relatively few who provide specified public safety services. As noted above, persons or entities that perform such functions use Part 15 devices. Forcing such persons to comply with the power reduction would damage the performance of medical and other valuable public safety functions.<sup>5/</sup>

8. Therefore, Pinpoint's ostensible concern that new rule section 90.361 may extend the rebuttable presumption to a myriad of other uses of Part 15 devices not supported by the record in this proceeding is unjustified. As detailed in note 5, such uses were, in fact, made a part of the record in this proceeding. Also, should this exception actually apply to a myriad of uses, it would subvert the public policy rationale underlying the new section.

9. The public policy rationale behind the section is clear; to ensure that persons or groups who perform certain specified, essential, public services can communicate effectively with whomever they need to communicate. To extend the benefits of this exception to the myriad of uses feared by Pinpoint would defeat the

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<sup>5/</sup> See, e.g., ex parte letter of Henry Rivera on behalf of Metricom, Inc., filed on December 7, 1994; ex parte letter of Larry Solomon on behalf of Med-E-Systems, filed on December 6, 1994; ex parte letter of the ATA, filed on December 7, 1994.

Commission's goal for public safety and emergency medical services because the mythical large number of users would, by definition, limit the ability of these important users to successfully access the spectrum. This would harm the ability of those users whom the rule is designed to protect including the ATA.

**II. PRESERVING THE PRESUMPTION OF NON-INTERFERENCE INHERENT IN THE NEW RULES IS ESSENTIAL TO ALLOWING MEMBERS OF THE MEDICAL COMMUNITY AND OTHER USERS OF PART 15 DEVICES TO SHARE THE 920-928 MHz BAND WITH LMS SYSTEMS.**

10. The ATA opposes those portions of the PFRs filed by Pinpoint, Southwestern Bell Mobile Systems, Inc., and MobileVision, L.P. ("Mobilevision") that ask the Commission to reconsider the presumption of non-interference contained in new rule section 90.361.<sup>5/</sup>

11. Under the new rules, Part 15 devices are presumed not to interfere with LMS systems provided the Part 15 devices operate within certain clearly specified guidelines or are used as the final link for specified emergency and medical purposes. This regulatory scheme is the result of a carefully constructed compromise designed to facilitate use of the band by LMS systems and Part 15 devices. However, to afford LMS operators the opportunity to show that Part 15 devices operating within the given parameters are still interfering with their LMS systems -- i.e. to make the presumed non-interference a rebuttable presumption --

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<sup>5/</sup> Petition for Reconsideration of Mobilevision at p. 13, Petition for Reconsideration of Southwestern Bell Mobile Systems at p. 9, Petition for Reconsideration of Pinpoint at p. 23.



would be tantamount to having no presumption at all. And without this presumption, the fragile balance the Commission has created will no longer exist.

12. Throughout this proceeding, the Part 15 Community and several LMS operators have explained that the large embedded base of Part 15 devices which operates in the band will interfere with the new LMS systems.<sup>2/</sup> Because LMS systems are so easily interfered with, it is only under a regulatory framework that includes an irrebuttable presumption of non-interference for Part 15 devices that band-sharing can occur at all.

13. Furthermore, Part 15 users should not have to forfeit the ability to use their equipment simply because LMS systems, by their design, are incapable of sharing the 902-928 MHz band. Therefore, the Commission was correct in creating a "safe-harbor" in which Part 15 devices can operate without fear of being asked to either sacrifice their level of operation or shut down.

14. Finally, it is only due to the presumption of non-interference that LMS operators will be motivated to resolve their interference problems with the Part 15 Community. If the Commission were to eliminate the presumption or make it rebuttable, LMS operators would inevitably use this avenue to dominate the band and force Part 15 users to either curtail or cease operations, because such Part 15 devices will interfere with LMS systems.

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<sup>2/</sup> See, e.g., Petition for Reconsideration of the Part 15 Coalition at p. 3., n. 4; Petition for Reconsideration of Metricom, Inc., at ¶ 5, nn. 3 & 4.

III. THE COMMISSION SHOULD NOT ADD A DISTANCE VARIABLE TO THE PRESUMPTION OF NON-INTERFERENCE BECAUSE SUCH A RESTRICTION (i) IS UNENFORCEABLE AND (ii) WILL RESULT IN HEALTH CARE PROVIDERS AND OTHER USERS OF PART 15 DEVICES BEING FORCED TO CURTAIL OR CEASE OPERATIONS FOR REASONS BEYOND THEIR CONTROL.

15. The Coalition opposes that portion of the PFR filed by Uniplex Corporation ("Uniplex") which requests that the Commission amend new rule section 90.361 to, in effect, add a distance variable to that rule section and to apply this distance variable to indoor antennas.<sup>8/</sup>

16. The Commission should reject this suggestion because a distance variable would be impossible to enforce. Most Part 15 devices that are operated indoors are, by definition, portable. They can be, and often are, carried within a building and therefore can constantly be moving farther from and then nearer to a LMS receive antenna. Their movement is generally not planned, and is, thus, unpredictable. The Commission could never enforce such a restriction on indoor users of cordless phones or wireless modems.

17. More specifically, such an addition to new rule section 90.361 would be anathema to hospitals and other providers of medical care. For cost and other reasons, hospitals and medical centers will be particularly dependent on Part 15 technology to connect to each other and to the NII. If the Commission were to adopt a distance variable, whether or not a hospital or medical center, or parts of a hospital or medical center, could make these important communications would be wholly dependent on whether a LMS

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<sup>8/</sup> Petition for Reconsideration of Uniplex at p. 8.

operator decided to locate an antenna at a site within a prohibited distance from the hospital or medical center. This is a decision that cannot be controlled by the hospital or medical center in question or by the patients admitted to, or seeking care from, that health care provider.

18. Furthermore, nothing exists to prevent a LMS operator from placing an antenna within an interference zone of a hospital or medical center after that institution has already purchased Part 15 equipment. The possibility that Part 15 equipment may become legally unusable at any time by virtue of its location close to a LMS receiver will deter many medical care providers from purchasing the necessary Part 15 equipment.

**IV. THE COMMISSION SHOULD NOT ALLOW LMS OPERATORS TO OFFER EFFECTIVE UNRESTRICTED VOICE MESSAGING IN THE 920-928 MHz BAND BECAUSE VOICE MESSAGING IS NOT A NECESSARY COMPONENT OF LMS SERVICE AND TO ALLOW IT WOULD SEVERELY IMPAIR MEDICAL USES OF THE BAND.**

19. The ATA opposes Section I of the PFR submitted by Mobilevision which asks the Commission to amend the new rules to effectively allow LMS systems to offer unrestricted voice messaging that can interconnect with the public switched telephone network ("PSTN").<sup>2/</sup> To grant LMS operators such authority would be tantamount to allowing LMS systems to operate cellular phone systems in the 902-928 MHz band.

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<sup>2/</sup> Petition for Reconsideration of Mobilevision at pp. 2-6.

20. The 902-928 MHz band is not suitable for the voice service presently permitted in the new rule, let alone the type of unrestricted voice communications contemplated by Mobilevision. The Commission has expressly designed the 902-928 MHz band as a shared band. Therefore, Commission rules must permit the different services in the band to coexist effectively. Voice messaging services occupy significantly more bandwidth than data services, and would make low-power, unlicensed, medical uses of the band very difficult, if not impossible.

21. LMS is a vehicle location service, and LMS providers do not use voice to locate vehicles.<sup>10/</sup> Therefore, a voice component is not necessary for vehicle location services. Should LMS subscribers decide that a voice capability is essential to their needs, other options -- like cellular -- exist. There is simply no need to congest the band with voice services, particularly voice services that can connect to the PSTN, when the operation of such services will likely make impossible other uses of the band which the Commission expressly deems to be in the public interest.

**V. THE COMMISSION SHOULD NOT ALLOW WIDE BAND FORWARD LINKS IN THE 920-928 MHz BAND.**

22. The ATA opposes those portions of the PFR submitted by Uniplex which ask the Commission to amend the rules to allow

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<sup>10/</sup> It is significant that Air Touch Teletrac, the entity with the most experience locating vehicles in this band, does not ask the commission to reconsider this aspect of the Report and Order.

expanded use of wide band forward links in the 902-928 MHz band.<sup>11/</sup>

23. It is clear from the record in this proceeding that wide band forward links occupy a great deal of band width.<sup>12/</sup> The Commission has received sufficient information to establish that wide band forward links occupy so much space that successful sharing of the band with such devices is virtually impossible. Therefore, wide band forward links are simply incompatible with the notion of a band shared by multiple users.

24. The ATA supports the PFRs of the Part 15 Coalition and other members of the Part 15 industry that the restrictions on the use of wide band forward links in the new rules are inadequate to protect Part 15 devices.<sup>13/</sup> These already inadequate restrictions should not be weakened to encourage the development and deployment of LMS systems dependent on a technology that will drive other users from the band.

25. Moreover, manufacturers and users of Part 15 devices must feel reasonably confident that the Commission will not allow incompatible uses such as wide band forward links into the 902-928 MHz band. The ATA is committed to ensuring that Part 15 technology is available to enable the nation's health care providers to

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<sup>11/</sup> Petition for Reconsideration of Uniplex at p. 5.

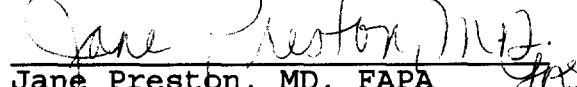
<sup>12/</sup> See, Comments of TIA at p. 4, filed August 12, 1994; Comments of the Part 15 Coalition at p. 2, filed March 15, 1994. See also, Report and Order at ¶ 82.

<sup>13/</sup> See, e.g., Part 15 Coalition Petition for Reconsideration at p. 6.

communicate with each other and connect to the NII via cost-effective and efficient technology. The ATA is especially concerned that the presence of wide band forward links in the band on any level, let alone the expanded level proposed by Uniplex, will deter investment in, and research and development by, manufacturers of Part 15 devices, and will severely damage the ability of the medical community to economically connect to the NII and access essential medical information.

Respectfully Submitted,

THE AMERICAN TELEMEDICINE ASSOCIATION

  
Jane Preston, MD, FAPA  
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May 24, 1995

CERTIFICATE OF SERVICE

On May 24, 1995 I caused a copy of the foregoing Opposition to Petitions for Reconsideration of the American Telemedicine Association to be served via U.S. mail on the following parties:

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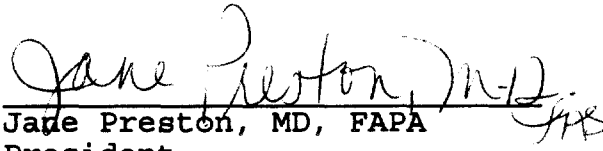
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